STEER: St. Thomas East End Reserves

- Update on scientific research –

Stay tuned for results that will be available in October and November!

Derelict vessels in STEER are a navigation hazard and potential source of chemical contaminants

NOAA Scientists conducting sediment sampling near little St. James (A.Hoffman)

UPCOMING STEER EVENTS

- **November 3rd** : East End Reserves Cleanup, meet at Ivanna Eudora Kean at 8:00am
- **November 18th** : Reef Fest at Coral World

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1) Characterization of Land-Based Sources of Pollution and Effects in the St. Thomas East End Reserves (STEER)

A two year project conducted by the National Oceanic and Atmospheric Administration's Center for Coastal Monitoring and Assessment (NOAA CCMA) and local partners on St. Thomas to develop an integrated chemical and biological characterization of STEER. The aim is to quantify chemical contaminants in sediments and marine biota throughout STEER, characterize the health and susceptibility to toxicity of the benthic in faunal (in-sediment) community, and conduct the first ever Reserve-wide biological survey of fish, seagrass, benthic and coral communities.

What has been done?

- Formulation of a sampling design and collection of sediment from 24 different locations within STEER
- Process is currently underway to analyze these sediments for over 150 chemical contaminants and determine sediment toxicity to benthic organisms
- Monthly monitoring for nutrients, total suspended solids (TSS), and sedimentation
- Biological monitoring of fish, seagrass, coral and benthic structure at 80 sites-71 within STEER area and 9 outside the boundary of the park

What is the current status?

Preliminary results will be available and presented to stakeholders in November. The full report of biological monitoring will be available by June 2013.

Benefits from the study

The results will help characterize the natural resources (fish, mangroves, seagrasses and coral reef communities) of STEER and determine the effects of environmental stressors on the health and sustainability of these resources. The information will guide management actions to prioritize and minimize these stressors.

Map of STEER

2)STEER Coastal Use Mapping Project

The Department of Planning and Natural Resources (DPNR) along with NOAA's Coral Reef Conservation Program (CRCP), NOAA's Office of Ocean and Coastal Resource Management (OCRM), NOAA's National Centers for Coastal Ocean Science (NCCOS) conducted workshops engaging community members to provide information on human activities in and near the St. Thomas East End Reserves (STEER). The project purpose is to improve understanding of human activities and uses in STEER to identify stakeholder conflict and inform natural resource management.

What has been done?

- Existing data on STEER was collected and mapped
- Workshops involving business owners and community members active in the marine environment were conducted to collect first hand information to understand the human activities and usage, issues, and constraints in STEER. The information collected will answer important questions such as: Who are the primary resource users? What kind of activities occur within STEER? Where are they concentrated and what are the impacts, potential conflicts and potential solutions?

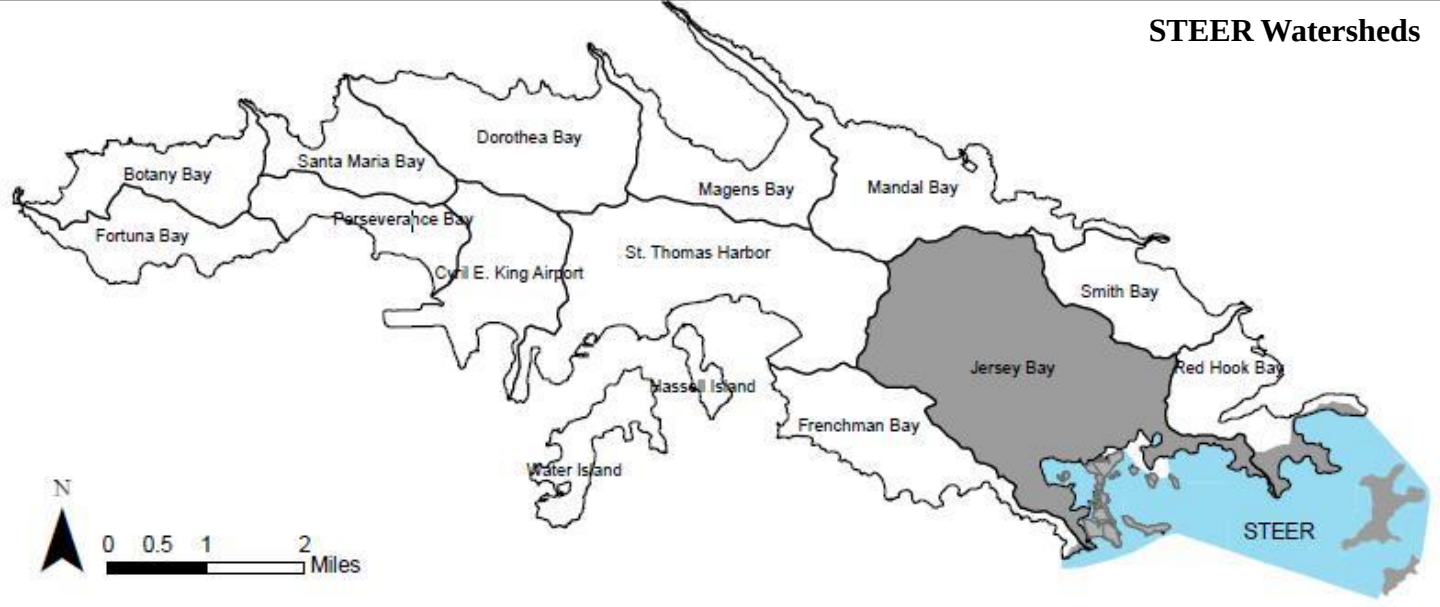
What is the current status?

NOAA is creating preliminary maps based on the information collected from the community. **The draft maps will be presented back to the participants of the worship and the community on October 29 and 30, 2012**. Once this review is completed, the results will be available to workshop participants, the general public, and resource managers as maps and GIS mapping layers reflecting the variety and extent of ocean uses in STEER.

Benefits from the study

The study will provide social and spatial information on human activity in STEER. The information will inform management decisions to protect ecosystems and reduce impacts on business owners and residents that depend on marine resources in STEER.

STEER Watersheds



3) Watershed Assessment and Planning study

Funded by NOAA's Coral Reef Conservation Program, in partnership with DPNR and The Nature Conservancy, the Watershed Management Plan will identify land-based sources of pollution and recommend actions to minimize these impacts from the watershed area draining into STEER. The Jersey Bay watershed area is approximately 6 square miles in size and includes the land areas starting from the ridge in the old Tutu Estate and spanning between the Bovoni Landfill and Cabrita Point. The watershed area is highly urbanized and consists of residential development, as well as industrial and commercial sites including the Bovoni landfill and Tutu Plaza. Turpentine Run is the primary gut draining the watershed and Mangrove Lagoon, Benner Bay, and other areas have been cited for failing to meet water quality standards.

What has been done?

- Existing data and management plans were compiled to guide the scoping process
- Three public meetings were conducted with community members to help identify the problem areas, management goals and implementation priorities
- An on-the-ground assessment of the watershed area was conducted in February 2012 to determine the potential for restoration

What is the current status?

All of this information is being combined into a watershed management plan to document land based sources of pollution and recommend restoration priorities and implementation strategies to achieve them. Stakeholder meetings are tentatively being scheduled for November 2012 and a final management plan is to be ready by February next year.

Benefits from the study

Recommended strategies from the Watershed Plan will be implemented to improve the water quality in STEER thereby improving the health and sustainability of natural resources.